

REMARKS/ARGUMENTS

Claims 1-11 were presented for examination and are pending in this application. In the final office action dated December 31, 2009, claims 1–11 were rejected. The Applicant thanks the Examiner for his careful consideration of the present application and addresses the grounds of rejection in the following remarks.

Applicant herein amends claims 1, 2 and 8 and respectfully traverses the Examiner's prior rejections. No claims are currently canceled and no new claims are added. These changes are believed not to introduce new matter, and their entry is respectfully requested. The claims have been amended to expedite the prosecution and issuance of the application. In making this amendment, the Applicant has not and is not narrowing the scope of the protection to which the Applicant considers the claimed invention to be entitled, and does not concede, directly or by implication, that the subject matter of such claims was in fact disclosed or taught by the cited prior art. Rather, the Applicant reserves the right to pursue such protection at a later point in time and merely seeks to pursue protection for the subject matter presented in this submission.

Based on the above amendments and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and withdraw them.

REJECTION OF CLAIMS

Claims 1, 8, 10, and 11 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Application Publication 2003/0081697 by Little ("Little"). Claims 2–4 and 9 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Little in view of U.S. Patent 4,709,274 by Tanioka ("Tanioka"). Finally, claims 5–7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Little in view of U.S. Patent 1,566,169 by Lavrenov ("Lavrenov"). The Applicant traverses

the rejections based upon the following remarks and respectfully requests reconsideration.

According to the present claimed invention, an adaptive slicer threshold is derived from averages of a select number of a plurality of maximum and minimum values of a received signal. As described in the background section of the present invention, prior art methodology to derive slicer thresholds typically uses a single maximum and minimum value to arrive at a midpoint. However, these maximum and minimum values are absolute values, which creates a slicer threshold sensitive to noise, especially when the noise indices have large peaks and valleys. The present invention detects several maximum and minimum values and thereafter averages a select number of these maximum and minimum values to calculate a robust slicer threshold which is less sensitive to noise. Thus, according to the present invention, a single large peak will have minimal impact on the slicer threshold.

Little is once again cited as anticipating the present invention. As mentioned in the prior response, Little appears to utilize a moving average of all signals so as to determine a slicer threshold. And, in an alternative embodiment, Little uses a single maximum and minimum to determine a slicer threshold.

In the present rejection the Office has turned to Figure 4 and paragraphs [0026-0027] in which Little describes the calculation of a moving average. A moving average is one that averages a number of values over a specified period. The term is commonly used in measuring economic gains and losses in the financial market. Little, however, describes in paragraphs [0026-0027] a recalculating average that continually recomputes the average based on new inputs. As another data point is determined, a new average is determined by using the previous average and averaging that value with the new data. At any one calculation only two values are averaged, representative of a number of individual data values. The present

invention as claimed averages a plurality of detected minimums and maximums. To clarify the distinction between the present invention and that of Little the claims have been amended to state that “a select number of” a plurality of detected minimums and maximum values is averaged.

To illustrate the difference, consider this simple example. Consider a plurality of values, 2, 6, 8 and 12. The average of these four values is their sum, 28, divided by 4 yielding 7. Yet the average computed by the technique and circuit shown in Little would be the average of 2 and 6, which is 4, plus the average of 4 and 8, which is 6, plus the average of 6 and 12, which is 9. Just as these two values are different so too are the teachings of Little and the present invention. Little does not teach averaging a select number of a plurality of detected minimum and maximum values as is claimed by the present invention.

The present invention selects a certain number of detected maximum and minimum values from which to determine an average and thus a slicer threshold. By doing so, the slicer threshold is less sensitive to noise, especially that noise occurring at the beginning of the signal. Indeed in one embodiment only 4 detected maximum and minimum values are used to determine the slicer threshold despite other maximum and minimum values being available.

The present invention does not employ a moving average of each maximum and minimum value as described in Little, moreover, the selection of a plurality of maximum or minimum values to determine a slicer threshold is absent from Little. Little fails to suggest or teach such an approach.

As claims 1 and 8 are novel over Little and each dependent claim maintains the limitations presented in claim 1 and 8, they, too, are deemed novel over Little. Furthermore, the art cited against each dependent claim under a rejection of obviousness fails to resolve the above identified deficiency of Little. Accordingly,

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claims 2-7 and 9-11 are patentable over Little in combination with Tanioka and/or Lavrenov. Reconsideration is respectfully requested.

In view of all of the above, the claims are now believed to be allowable and the case in condition for allowance which action is respectfully requested. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution of this case, the Examiner is requested to contact Applicant's attorney at the telephone number listed below.

No fee is believed due for this submittal. However, any fee deficiency associated with this submittal may be charged to Deposit Account No. 50-1123.

Respectfully submitted,

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